This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.

Pa: nt Abstracts of Japan

PUBLICATION NUMBER

07234988

PUBLICATION DATE

05-09-95

APPLICATION DATE

23-02-94

APPLICATION NUMBER

06025179

APPLICANT:

MITSUBISHI HEAVY IND LTD;

INVENTOR:

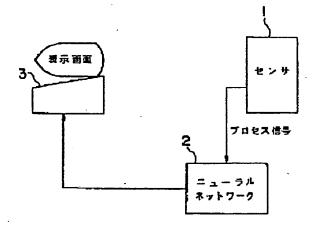
KAMINARI SHOICHIRO;

INT.CL.

G08B 31/00 G06G 7/60

TITLE

ABNORMALITY DIAGNOSTIC DEVICE



ABSTRACT :

PURPOSE: To provide an abnormality diagnostic device which can easily and accurately decide the abnormality of a plant based on the signal waveform without using any operator to decide the abnormality.

CONSTITUTION: A sensor 1 is provided on a plant to be diagnosed, and the process signal which is outputted from the sensor 1 to show the operating state of the plant is transmitted to a neural, network 2. A signal pattern of the abnormality mode is previously learnt and stored in the network 2. Thus the network 2 compares the pattern of the process signal received from the sensor 1 with the signal pattern of the abnormality mode stored previously when the plant is actually operated. Then the network 2 decides the plant abnormality based on the result of comparison and shows this fault on a display device 3.

COPYRIGHT: (C) JPO

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER

08102241

PUBLICATION DATE

16-04-96

APPLICATION DATE

30-09-94

APPLICATION NUMBER

06236260

APPLICANT:

TOSHIBA CORP;

INVENTOR:

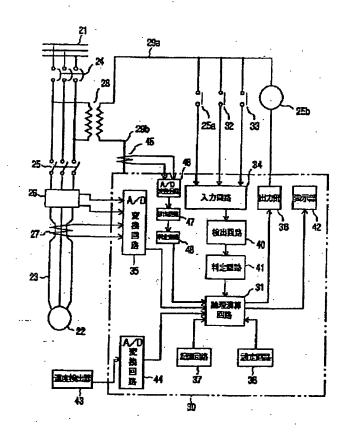
AKAHA TSUTOMU;

INT.CL.

H01H 47/00

TITLE

LOAD CONTROL APPARATUS



BSTRACT

PURPOSE: To predict the load of such as an electric motor, etc., and the maintenance timing of appliances such as electromagnetic contactors, etc., to presume the deterioration condition, and predict trouble occurrence in order to simplify maintenance work.

CONSTITUTION: First detection means 34, 40, 41 to detect the open or close state of an electromagnetic contactor 24, second detection means 46-48 to detect the alteration of load current as the lapse of time obtained from a current transformer 26, and third detection means 43, 44 to detect the temperature in a unit apparatus are installed in a load control apparatus. The load current value, the operating hours of the electromagnetic contactor, and the temperature of the unit apparatus from the first to the third detection means are taken in a theoretically computing circuit 31 of a control part 30 and predicted life of the electromagnetic contactor 24 is calculated based on, for example, Arrhenius's equation and the calculation result is sent out and displayed.

COPYRIGHT: (C)1996, JPO

nt Abstracts of Japan

PUBLICATION NUMBER

07234988

PUBLICATION DATE

05-09-95

APPLICATION DATE

23-02-94

APPLICATION NUMBER

06025179

APPLICANT: MITSUBISHI HEAVY IND LTD;

INVENTOR :

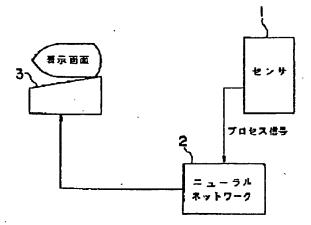
KAMINARI SHOICHIRO;

INT.CL.

G08B 31/00 G06G 7/60

TITLE

: ABNORMALITY DIAGNOSTIC DEVICE



ABSTRACT: PURPOSE: To provide an abnormality diagnostic device which can easily and accurately decide the abnormality of a plant based on the signal waveform without using any operator to decide the abnormality.

> CONSTITUTION: A sensor 1 is provided on a plant to be diagnosed, and the process signal which is outputted from the sensor 1 to show the operating state of the plant is transmitted to a neural, network 2. A signal pattern of the abnormality mode is previously learnt and stored in the network 2. Thus the network 2 compares the pattern of the process signal received from the sensor 1 with the signal pattern of the abnormality mode stored previously when the plant is actually operated. Then the network 2 decides the plant abnormality based on the result of comparison and shows this fault on a display device 3.

COPYRIGHT: (C) JPO

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER

08102241

PUBLICATION DATE

16-04-96

APPLICATION DATE

30-09-94

APPLICATION NUMBER

06236260

APPLICANT: TOSHIBA CORP;

INVENTOR

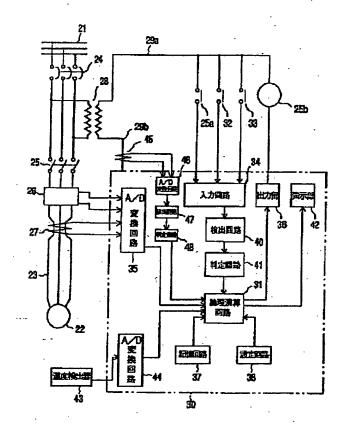
AKAHA TSUTOMU;

INT.CL.

H01H 47/00

TITLE

LOAD CONTROL APPARATUS



BSTRACT: PURPOSE: To predict the load of such as an electric motor, etc., and the maintenance timing of appliances such as electromagnetic contactors, etc., to presume the deterioration condition, and predict trouble occurrence in order to simplify maintenance work.

> CONSTITUTION: First detection means 34, 40, 41 to detect the open or close state of an electromagnetic contactor 24, second detection means 46-48 to detect the alteration of load current as the lapse of time obtained from a current transformer 26, and third detection means 43, 44 to detect the temperature in a unit apparatus are installed in a load control apparatus. The load current value, the operating hours of the electromagnetic contactor, and the temperature of the unit apparatus from the first to the third detection means are taken in a theoretically computing circuit 31 of a control part 30 and predicted life of the electromagnetic contactor 24 is calculated based on, for example, Arrhenius's equation and the calculation result is sent out and displayed.

COPYRIGHT: (C)1996,JPO